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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,506	12/05/2003	Daniel F. Sievenpiper	B-4046DIV 621280-9	9093
36716	7590	06/20/2006	EXAMINER	
LADAS & PARRY				NGUYEN, TAI V
5670 WILSHIRE BOULEVARD, SUITE 2100				ART UNIT
LOS ANGELES, CA 90036-5679				PAPER NUMBER
				3729

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/728,506	SIEVENPiper ET AL.	
	Examiner Tai Van Nguyen	Art Unit 3729	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 25 April 2006.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 23-29 and 34-42 is/are pending in the application.
 4a) Of the above claim(s) 30-33 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 23-29 and 35-41 is/are rejected.
 7) Claim(s) 34 and 42 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. 09/905,794.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendment

1. The applicants' amendment filed 4/25/2006 has been fully considered and made of record.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 23-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Fork (US 3,886,702).

As applied to claim 23-27, Fork discloses a method of making a high impedance surface comprising the steps of: (a) forming a structure from sheet metal (160A, Fig. 6), the structure having a plurality of openings (175) therein with confronting sidewalls on the sides of the openings (176), the structure also having a plurality of protrusions projecting (170) from a major surface thereof; and (b) joining the structure to additional sheet metal (160B) such that ends of the protrusions remote from the major surface are coupled to the additional sheet metal. As applied to claim 28, Fork discloses the sidewalls define repeating geometric pattern (see sequence Fig. 1 and 5-6). As applied to claim 29, Fork discloses repeating geometric pattern is a pattern of square-shaped cells (168, 169).

As applied to claim 28, Fork discloses the sidewalls define repeating geometric pattern (see sequence Fig. 1 and 5-6).

As applied to claim 29, Fork discloses repeating geometric pattern is a pattern of square-shaped cells (168, 169).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 35-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fork in view of Hays III (US 5,703,544).

As applied to claims 35-39, Fork discloses a method of making a high impedance surface comprising the steps of: (a) forming a structure from sheet metal (160A, Fig. 6), the structure having a plurality of openings (175) therein with confronting sidewalls (167) on the sides of the openings (176), the structure also having a plurality of protrusions projecting (170) from a major surface thereof; and (b) joining the structure to additional sheet metal (160B) such that ends of the protrusions remote from the major surface are coupled to the additional sheet metal.

However, Fork do not teach that the confronting sidewalls providing opposing plates of the capacitors. Hays III teach the confronting sidewalls providing opposing plates of the capacitors (35a, Fig. 8).

As applied to claim 40, Fork discloses the sidewalls define repeating geometric pattern (see sequence Fig. 1 and 5-6).

As applied to claim 41, Fork discloses repeating geometric pattern is a pattern of square-shaped cells (168, 169).

It would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Fork by including providing opposing plates of capacitor, as taught by Hays III, to positively provide an RF printed circuit module and a process for making RF printed circuit modules which enables a high repeatability of production within desired quality control parameters (see column 2, lines 14-17).

Allowable Subject Matter

6. Claims 34 and 42 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed 4/25/2006 have been fully considered but they are not persuasive.

In regard to the merits of Fork, the applicants contend that Fork does not teach "the structure having a plurality of opening therein with confronting sidewalls on the sides of the opening" (as recited in claim 23, lines 3-5).

The examiner traverses for following reasons:

For further clarification, in Fork the claimed “plurality of opening” was read as opening 175 and 176. The claimed “confronting sidewalls” as read as walls 167.

Therefore, the claims do not distinguish over the reference Fork.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 571-272-4567. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN.
June 5, 2006



A. DEXTER TUGBANG
PRIMARY EXAMINER